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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,131	10/21/2001	Francisco M. Galanes	M61.12-0393	9228

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EXAMINER	
LERNER, MARTIN	
ART UNIT	**PAPER NUMBER**
2626	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/046,131	GALANES ET AL.	
	Examiner	Art Unit	
	Martin Lerner	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1 to 56 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 to 56 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 02 June 2006 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The Information Disclosure Statement, filed 29 December 2006, indicates that it is "Sheet 1 of 4", but there is only one sheet presented for the Information Disclosure Statement.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 to 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations of independent claims 1, 12, 23, and 52, that the first and second sets of controls are "abstractions" related to client side markup are vague and indefinite. Applicants' Specification, Page 28, Lines 14 to 21, does disclose that the controls "abstract and encapsulate" the markup language, but the term "abstractions" is unclear. The scope of the term "abstractions" is indefinite because it unclear what the term adds to the claim. Standard dictionary definitions might define an "abstraction" as an abstract concept or idea, but any significance to be accorded to the term is not apparent from the context. The term "abstractions" is vague and does not provide a concrete claim limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 to 2, 4 to 8, 12 to 13, 15 to 19, 23 to 24, 26 to 30, and 52 are rejected under 35 U.S.C. 102(e) as being anticipated by *Dantzig et al.*

Regarding independent claims 1, 12, 23, and 52, *Dantzig et al.* discloses:

"a first set of visual controls having attributes for defining desired visual renderings on the client device, the first set of controls being abstractions related to client side markup executable by a client browser" – main renderer 14 of a multi-modal presentation manager 11 initiates a first processing thread ("a first set of visual controls") comprising a GUI presentation manager 15 (column 7, lines 38 to 43: Figure 1); presentation of a graphic user interface (GUI) for an application defines a "desired visual rendering"; multi-modal presentation manager 11 controls an application on a web browser or a desktop (column 8, lines 32 to 35: Figure 1); implicitly, a web browser is executed on a client in a client/server architecture for receiving information from the Internet; in deferred rendering and presentation, a transcoder 30 converts an IML script 12 to a VoiceXML script 32 (column 8, lines 43 to 54: Figure 2); a GUI presentation

manager parses IML tags and attributes (column 10, line 60 to column 11, line 2); gesture-based IML allows an application to be written in a manner which is independent of application logic and presentation, *i.e.* it encapsulates man-machine interaction in a modality-independent manner (column 5, line 65 to column 6, line 17); thus, IML produces controls that are "abstractions" because dialogs are encapsulated in a manner that is independent of the content and application (Compare Specification, Page 28, Lines 14 to 21, where controls are described that abstract and encapsulate the markup language);

"a second set of controls having attributes for defining desired operation on the client device comprising at least one of recognition and audibly prompting, the second set of controls using at least one of the first controls, the second set of controls being abstractions related to client side markup executable by a client browser" – main renderer 14 of a multi-modal presentation manager 11 initiates a second processing thread ("a second set of controls") comprising a speech renderer 16, wherein the speech renderer 16 utilizes a plurality of speech engines 17 for speech recognition and text-to-speech synthesis (column 7, lines 38 to 47: Figure 1); multi-modal presentation manager 11 controls an application on a web browser or a desktop (column 8, lines 32 to 35: Figure 1); implicitly, a web browser is executed on a client in a client/server architecture for receiving information from the Internet; in deferred rendering and presentation, a transcoder 30 converts an IML script 12 to a VoiceXML script 32 (column 8, lines 43 to 54: Figure 2); a VoiceXML document is generated from an IML script by parsing IML tags and attributes representing "choice" selections to build voice

prompts (column 10, line 60 to column 11, line 14: Figure 2); a speech renderer 16 ("a second set of controls") "uses" and "is associated with" GUI presentation manager 15 ("a first set of controls") because multi-modal presentation manager 11 automatically integrates and synchronizes voice synthesis and speech recognition functions with the presentation layer of applications (column 6, line 63 to column 7, line 8: Figure 1); gesture-based IML allows an application to be written in a manner which is independent of application logic and presentation, *i.e.* it encapsulates man-machine interaction in a modality-independent manner (column 5, line 65 to column 6, line 17); thus, IML produces controls that are "abstractions" because dialogs are encapsulated in a manner that is independent of the content and application (Compare Specification, Page 28, Lines 14 to 21, where controls are described that abstract and encapsulate the markup language);

"a module operable on a computer, the module being configured to receive an authoring page for a website comprising a plurality of the second set of controls, wherein the module is further configured to process the plurality of the second set of controls to generate client side markup executable by the client browser on the client in the server/client system in accordance with the second set of controls and the attributes of the second set of controls for at least one of recognition and audibly prompting, and wherein the module is configured to use at least one of the first set of controls in order to generate markup when processing each of the second set of controls" – a "single-authoring" system and method is an interaction-based programming paradigm for creating content as an intent-based markup script, permitting an application to be

written in a manner which is independent of control application logic and presentation (column 5, line 20 to column 6, line 2; column 10, lines 24 to 28); implicitly, authoring for web-based presentation is on "an authoring page" at a client browser; authoring produces content for both GUI presentation manager 15 and speech renderer 16 (column 7, lines 38 to 48); an IML script has attributes, which are parsed to generate a VoiceXML script (column 7, lines 20 to 37).

Regarding claims 2, 4, 13, 15, 24, and 26, *Dantzig et al.* discloses controls relate to grammars for speech recognition (column 9, lines 31 to 39; column 16, lines 6 to 30).

Regarding claims 5, 6, 16, 17, 27, and 28, *Dantzig et al.* discloses controls relating to XML (column 5, lines 50 to 56), VoiceXML (a form of XML) (Abstract), and WML (column 6, lines 56 to 62).

Regarding claims 7, 8, 18, 19, 29, and 30, *Dantzig et al.* discloses a speech renderer 16 generates audible output by text-to-speech synthesis (column 7, lines 42 to 45).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 9 to 11, 14, 20 to 22, 25, 31 to 46, and 53 to 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al. ('336)*.

Dantzig et al. discloses a system and method for generating and presenting multi-modal applications from markup scripts for synchronizing a GUI presentation layer with voice synthesis and speech recognition, but omits details relating to "attributes providing a reference to a location", "a prerecorded audio data file", "an identifier of the associated control", "a question control", "an answer control", "binding the recognition value", and "a confirmation control". However, *Ladd et al. ('336)* teaches a voice browser for interactive services. An objective is permit users to access information from any location in the world via any suitable network access device. (Column 43, Lines 54 to 63) It would have been obvious to one having ordinary skill in the art to include details disclosed by *Ladd et al. ('336)* in a system and method for generating and presenting multi-modal applications from markup scripts of *Dantzig et al.* for a purpose of permitting users to access information from any location in the world via a suitable network access device.

Concerning claims 3, 14, and 25, *Ladd et al. ('336)* discloses attributes for grammars (column 13, lines 6 to 10), and retrieving grammars from database locations (column 12, lines 7 to 14; column 14, lines 18 to 28) for speech recognition.

Concerning claims 9 to 11, 20 to 22, and 31 to 33, *Ladd et al. ('336)* discloses determining an address for playing a prompt to a user (column 13, line 66 to column 14, line 17: Figure 5a: Steps 400, 402, 406); both recorded sound samples (column 15, line 63) and text to speech (TTS) (column 16, lines 11 to 20) are provided.

Concerning claims 34 and 53, *Ladd et al. ('336)* discloses a markup language for text to speech; implicitly, when the text is displayed and the speech is produced for an

audible prompt, there is an association of attributes between visual controls and audible controls.

Concerning claims 35 to 37, *Ladd et al. ('336)* discloses an option list in a markup language for controlling which choices are available at a network access apparatus (column 28, lines 9 to 60).

Concerning claim 38, *Ladd et al. ('336)* discloses a FORM input to collect an order in response to a prompt, and post the input to an address (column 20, lines 20 to 46); thus, a markup language controls a prompt, then activates an input, and then performs a post operation.

Concerning claims 39 to 43 and 54, *Ladd et al. ('336)* discloses a markup language for generating an audible prompt of a question and a grammar for an answer; an answer is followed by, and is activated, a question prompt, where an answer is bound for recognition by <INPUT TYPE> (column 18, lines 40 to 55); a post operation is "an event related to operation of binding" (column 20, lines 28 to 46).

Concerning claims 44 to 46 and 55 to 56, *Ladd et al. ('336)* discloses a markup language for re-prompting ("repeating an audible prompt") (column 14, line 57 to column 15, line 16: Figure 5a: Steps 416, 425), and an attribute for confirming a recognition result (column 15, lines 45 to 54: Figure 5a: Step 452).

Claims 47 to 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al. ('336)* as applied to claims 23, 39, 40, 45, and 46

above, and further in view of *WCW Working Draft ("Grammar Representation Requirements for Voice Markup Languages")*.

Ladd et al. ('336) discloses a confirmation control to accept an answer as a recognized result that is correct (column 15, lines 44 to 59: Figure 5b: Step 456). Lack of confirmation implicitly denies a recognized result, whereupon the process continues to replay a prompt for a current step so as to correct a recognition result. (Figures 5a and 5b: Step 446) However, *Ladd et al. ('336)* omits an attribute related to a confidence level for confirming, accepting or denying, and correcting a recognition result. *WCW Working Draft* teaches grammars for voice markup languages with attributes, where confidence scoring tightens or relaxes the normal rejection constraints to provide content based control of performance. (Sections 4.3 and 5.1) It would have been obvious to one having ordinary skill in the art to provide confidence scoring as taught by *WCW Working Draft* in the voice browser for interactive services of *Ladd et al. ('336)* for a purpose of tightening or relaxing rejection constraints to provide content based control of performance.

Response to Arguments

Applicants' arguments filed 08 January 2007 have been fully considered but they are not persuasive.

Firstly, Applicants argue that the first and second set of controls does not read on the first and second processing threads of *Dantzig et al.* Applicants say that the controls with corresponding attributes form an "authoring page". Then, Applicants

maintain that the IML input files equate to the authoring page for a website. This position is traversed.

Applicants' statement and interpretation of how the claim language may or may not read upon the disclosure of *Dantzig et al.* does not make sense and is incorrect. The "controls" relate to how a web page is presented by a markup language, *i.e.* how a web page is visually or audibly presented. The markup language has elements, *e.g.* lines of computer code written in a markup language, which control how the items are presented to a user browsing a web page. In VoiceXML, the markup language provides lines of code for controlling both a visual interface with the user and an audible interface with the user. Thus, *Dantzig et al.* is applied as prior art to the term "controls" to indicate how the markup language controls the presentation of text and audio outputs/inputs to/from the user. The term "controls" does not relate directly to an "authoring page". Certainly, a web programmer must, at some point, author the web page by writing the page in a programming language, *e.g.* HTML, XML, or VoiceXML. However, saying that the "controls" are equivalent to an "authoring page" is incorrect. The authoring page may be used to create the controls, but a user browsing a web page does not see the authoring page if he/she is not the web programmer.

Similarly, it is incorrect to say that the IML files equate to the authoring page. *Dantzig et al.* discloses that the IML files are actually just a high-level XML (eXtensible Markup Language)-based script for representing interaction "dialogs" or "conversations" between the user and machine. (Column 5, Lines 50 to 56) IML is a programming language similar to XML, HTML, and VoiceXML, but has higher level characteristics in

that that it encapsulates "dialogues" in a manner that is modality independent and in a single authoring format. However, IML files do not 'equate to' an authoring page; an authoring page is used to create content for an IML programming markup language, and *Dantzig et al.* discloses authoring of content for IML. But the authoring page need not itself be presented by IML files; if the authoring page were presented by IML files, then that would imply that a web programmer could create web content by interacting with the authoring page via voice commands and voice prompts, which is not necessarily the case.

Secondly, Applicants argue that the IMLs do not contain any set of controls that have attributes associated with visual rendering and/or recognition and audibly prompting because the IMLs are modality neutral, and thus, are explicitly devoid of visual, recognition and/or audible prompting features. This position is traversed.

Dantzig et al. discloses IMLs producing a set of controls having attributes associated with visual and audible rendering even through IML is described as being modality-independent. The simplest way to understand why this is true is to note that a transcoder 30 converts an IML script 12 to a VoiceXML script 32. (Column 8, Lines 43 to 54: Figure 2) *Dantzig et al.* refers to the process as providing "deferred rendering and presentation" of an intent-based script. However, *Dantzig et al.* expressly says that the multi-modal presentation manager 11 parses the IML tags and attributes, and maps the modality-independent IML instances into appropriate modality-specific representations, so as to generate a VoiceXML script based on the input IML script. (Column 7, Lines 20 to 37) Thus, even though IML is modality-independent, it is parsed

and transcoded into a Voice XML script, which is modality-specific, and produces renderings having aspects that are both visual and audible. IML still provides controls for defining visual and audible renderings, even though IML is a high-level, modality-independent markup language because it encapsulates these "dialogs" in an abstract manner.

Therefore, the rejections of claims 1 to 2, 4 to 8, 12 to 13, 15 to 19, 23 to 24, 26 to 30, and 52 under 35 U.S.C. §102(e) as being anticipated by *Dantzig et al.*, of claims 3, 9 to 11, 14, 20 to 22, 25, 31 to 46, and 53 to 56 under 35 U.S.C. §103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al. ('336)*, and of claims 47 to 51 under 35 U.S.C. §103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al. ('336)*, and further in view of *WCW Working Draft*, are proper.

Conclusion

Applicants' amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (571) 272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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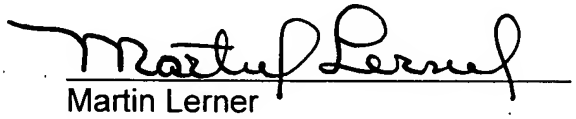

Martin Lerner
Examiner
Group Art Unit 2626